

US EPA RECORDS CENTER REGION 5

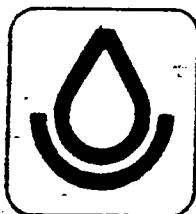


446286

**SOIL SURVEY OF**

**St. Joseph County, Indiana**

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**United States Department of Agriculture**  
**Soil Conservation Service**

**In cooperation with**  
**Purdue University**

**Agricultural Experiment Station**

This is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and agencies of the States, usually the Agricultural Experiment Stations. In some surveys, other Federal and local agencies also contribute. The Soil Conservation Service has leadership for the Federal part of the National Cooperative Soil Survey. In line with Department of Agriculture policies, benefits of this program are available to all who need the information, regardless of race, color, national origin, sex, religion, marital status, or age.

Major fieldwork for this soil survey was completed in the period 1967 to 1973. Soil names and descriptions were approved in 1973. Unless otherwise indicated, statements in the publication refer to conditions in the county in 1973. This survey was made cooperatively by the Soil Conservation Service and the Purdue University Agricultural Experiment Station. It is part of the technical assistance furnished to the St. Joseph County Soil and Water Conservation District.

Soil maps in this survey may be copied without permission, but any enlargement of these maps could cause misunderstanding of the detail of mapping and result in erroneous interpretations. Enlarged maps do not show small areas of contrasting soils that could have been shown at a larger mapping scale.

## HOW TO USE THIS SOIL SURVEY

**T**HIS SOIL SURVEY contains information that can be applied in managing farms and woodlands; in selecting sites for roads, ponds, buildings, and other structures; and in judging the suitability of tracts of land for farming, industry, and recreation.

### Locating Soils

All the soils of St. Joseph County are shown on the detailed map at the back of this publication. This map consists of many sheets made from aerial photographs. Each sheet is numbered to correspond with a number on the Index to Map Sheets.

On each sheet of the detailed map, soil areas are outlined and are identified by symbols. All areas marked with the same symbol are the same kind of soil. The soil symbol is inside the area if there is enough room; otherwise, it is outside and a pointer shows where the symbol belongs.

### Finding and Using Information

The "Guide to Mapping Units" can be used to find information. This guide lists all the soils of the county in alphabetic order by map symbol and gives the capability classification, special crop group, tree and shrub group, and woodland group of each. It also shows the page where each soil is described and the page for the capability unit in which the soil has been placed.

Individual colored maps showing the relative suitability or degree of limitation of soils for many specific purposes can be developed by using the soil map and information in the text. Translucent material can be used as an overlay

over the soil map and colored to show soils that have the same limitation or suitability. For example, soils that have a slight limitation for a given use can be colored green, those with a moderate limitation can be colored yellow, and those with a severe limitation can be colored red.

*Farmers and those who work with farmers* can learn about use and management of the soils from the soil descriptions and from the discussions of the capability units, the special crop groups, and the woodland groups.

*Foresters and others* can refer to the section "Use of the Soils for Woodland," where the soils of the county are grouped according to their suitability for trees.

*Wildlife managers and others* can find information about soils and wildlife in the section "Use of the Soils for Wildlife Habitat."

*Community planners and others* can read about soil properties that affect the choice of sites for dwellings, commercial buildings, and waste disposal facilities in the section "Town and Country Planning."

*Engineers and builders* can find, under "Engineering Uses of the Soils," tables that contain test data, estimates of soil properties, and information about soil features that affect engineering practices.

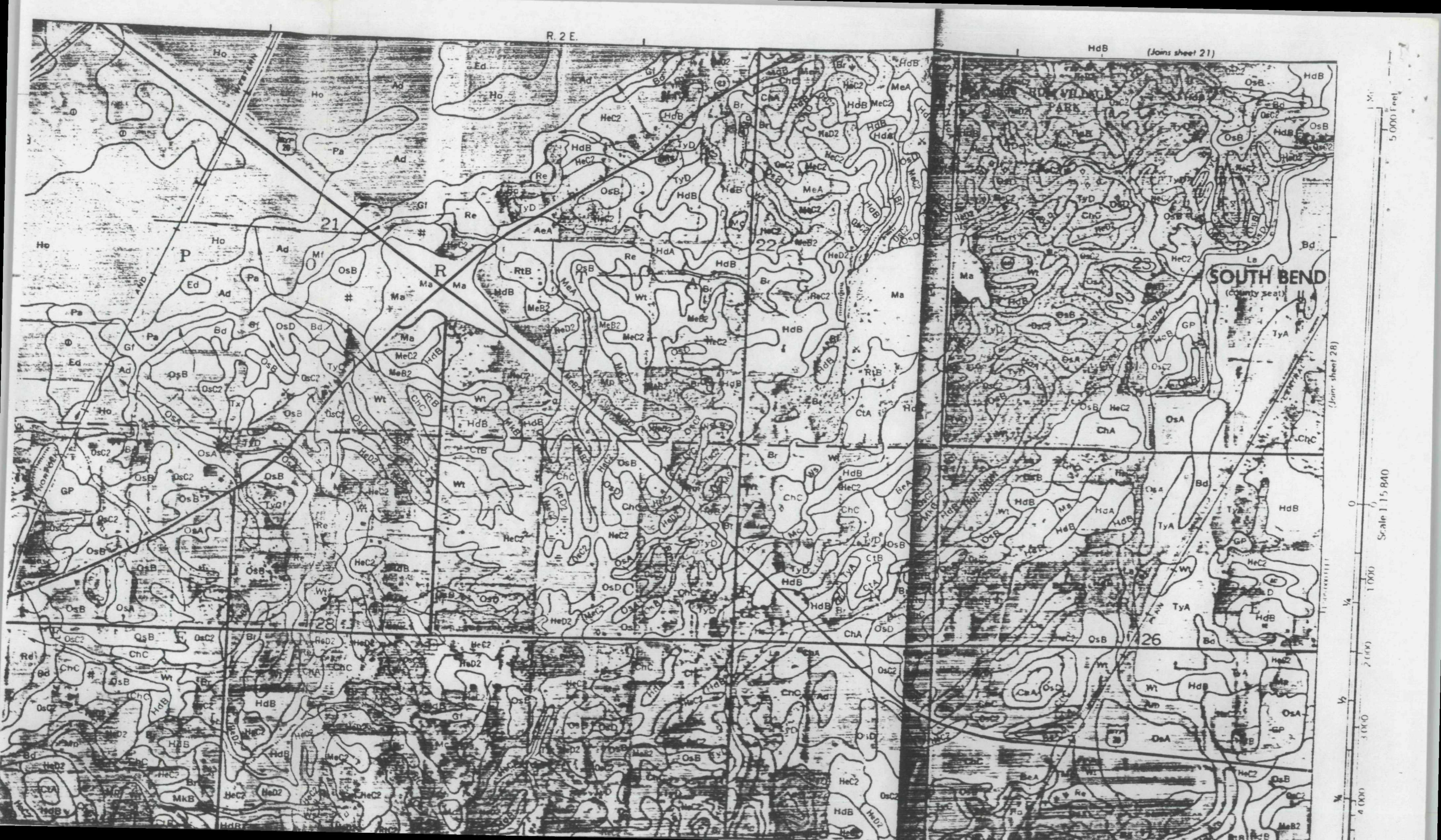
*Scientists and others* can read about how the soils formed and how they are classified in the section "Formation and Classification of the Soils."

*Newcomers in St. Joseph County* may be especially interested in the section "General Soil Map," where broad patterns of soils are described. They may also be interested in the information about the county given in the section "Additional Facts About the County."

# Contents

	Page		Page
Summary of tables.....	iii	Ho—Houghton muck, drained.....	23
How this survey was made.....	1	Landes series.....	24
General soil map.....	2	La—Landes loam.....	24
Dominantly well-drained to excessively drained, nearly level to strongly sloping soils.....	2	Made land.....	24
1. Hillsdale-Oshtemo-Chelsea association.....	2	Ma—Made land.....	24
2. Oshtemo-Fox association.....	4	Marsh.....	24
3. Tyner-Oshtemo association.....	4	Mc—Marsh.....	24
4. Coupee-Tracy association.....	4	Martinsville series.....	24
Dominantly somewhat poorly drained to very poorly drained, nearly level, gently sloping, and depressional soils.....	6	MeA—Martinsville loam, 0 to 2 percent slopes.....	25
5. Rensselaer-Gilford-Maumee association.....	6	MeB2—Martinsville loam, 2 to 6 percent slopes, eroded.....	25
6. Crosier-Brookston-Milford association.....	7	MeC2—Martinsville loam, 6 to 12 percent slopes, eroded.....	25
Dominantly well-drained to somewhat poorly drained, nearly level to strongly sloping soils.....	7	Maumee series.....	25
7. Morley-Blount association.....	7	Mf—Maumee loamy fine sand.....	25
8. Riddles-Miami-Crosier association.....	8	Mg—Maumee mucky loamy fine sand.....	25
Dominantly very poorly drained, depressional and nearly level, organic soils.....	9	Metea series.....	26
9. Houghton-Adrian-Palms association.....	9	MkB—Metea loamy fine sand, 4 to 10 percent slopes.....	26
Descriptions of the soils.....	10	Miami series.....	26
Adrian series.....	12	MmB—Miami loam, 2 to 6 percent slopes.....	27
Ad—Adrian muck, drained.....	12	MmC2—Miami loam, 6 to 12 percent slopes, eroded.....	27
Alida series.....	12	MoC3—Miami clay loam, 6 to 12 percent slopes, severely eroded.....	27
AeA—Alida loam, 0 to 2 percent slopes.....	13	MoD3—Miami clay loam, 12 to 18 percent slopes, severely eroded.....	27
Alluvial land.....	13	Milford series.....	27
Am—Alluvial land.....	13	Mp—Milford silty clay loam.....	28
Aubbeenaubbee series.....	13	Morley series.....	28
Au—Aubbeenaubbee sandy loam.....	14	MrB2—Morley silt loam, 2 to 6 percent slopes, eroded.....	28
Blount series.....	14	MrC2—Morley silt loam, 6 to 12 percent slopes, eroded.....	28
BbA—Blount silt loam, 0 to 2 percent slopes.....	14	MsD3—Morley silty clay loam, 12 to 18 percent slopes, severely eroded.....	28
Brady series.....	14	Oshtemo series.....	29
Bd—Brady sandy loam.....	15	OsA—Oshtemo sandy loam, 0 to 2 percent slopes.....	29
Brems series.....	15	OsB—Oshtemo sandy loam, 2 to 6 percent slopes.....	29
BeA—Brems fine sand, 0 to 2 percent slopes.....	15	OsC2—Oshtemo sandy loam, 6 to 12 percent slopes, eroded.....	29
Brookston series.....	16	OsD—Oshtemo sandy loam, 12 to 18 percent slopes.....	29
Br—Brookston silty clay loam.....	16	Palms series.....	30
Chelsea series.....	16	Pa—Palms muck, drained.....	31
ChA—Chelsea fine sand, 0 to 5 percent slopes.....	17	Quinn series.....	31
ChC—Chelsea fine sand, 5 to 10 percent slopes.....	17	Qu—Quinn loam.....	32
Coupee series.....	17	Rensselaer series.....	32
CoA—Coupee silt loam, 0 to 2 percent slopes.....	17	Re—Rensselaer loam.....	32
Crosier series.....	17	Rm—Rensselaer mucky loam.....	33
CtA—Crosier loam, 0 to 2 percent slopes.....	18	Riddles series.....	33
CtB—Crosier loam, 2 to 4 percent slopes.....	18	RtA—Riddles loam, 0 to 2 percent slopes.....	33
Del Rey series.....	19	RtB—Riddles loam, 2 to 6 percent slopes.....	33
De—Del Rey silt loam.....	19	RtC2—Riddles loam, 6 to 12 percent slopes, eroded.....	33
Edwards series.....	19	RtD2—Riddles loam, 12 to 18 percent slopes, eroded.....	34
Ed—Edwards muck.....	19	Tedrow series.....	34
Elston series.....	20	Te—Tedrow fine sand.....	34
EsA—Elston sandy loam, 0 to 2 percent slopes.....	20	Tracy series.....	34
Fox series.....	20	TrA—Tracy sandy loam, 0 to 2 percent slopes.....	35
FsA—Fox sandy loam, 0 to 2 percent slopes.....	21	TrB—Tracy sandy loam, 2 to 6 percent slopes.....	35
FsB—Fox sandy loam, 2 to 6 percent slopes.....	21	TrC2—Tracy sandy loam, 6 to 12 percent slopes, eroded.....	35
Gilford series.....	21	Troxel series.....	35
Gf—Gilford sandy loam.....	21	Tx—Troxel silt loam.....	36
Gravel pits.....	21	Tyner series.....	36
GP—Gravel pits.....	21	TyA—Tyner loamy sand, 0 to 6 percent slopes.....	36
Hillsdale series.....	22	TyC—Tyner loamy sand, 6 to 12 percent slopes.....	36
HdA—Hillsdale sandy loam, 0 to 2 percent slopes.....	22		
HdB—Hillsdale sandy loam, 2 to 6 percent slopes.....	22		
HeC2—Hillsdale complex, 6 to 12 percent slopes, eroded.....	22		
HeD2—Hillsdale complex, 12 to 18 percent slopes, eroded.....	22		
Houghton series.....	23		
Hm—Houghton muck.....	23		







1. A second legend, letter A & B, is located on the back of the map. A final number, 2 or 3, is the year.

# NAME

Muskego loamy fine sand  
Muskego mucky loamy fine sand  
Muskego loamy fine sand, 4 to 12 percent slopes  
Miami loam, 2 to 6 percent slopes  
Miami loam, 6 to 12 percent slopes, eroded  
Miami clay loam, 6 to 12 percent slopes, severely eroded  
Miami clay loam, 12 to 18 percent slopes, severely eroded  
Willard silty clay loam  
Norley silt loam, 2 to 6 percent slopes, eroded  
Norley silt loam, 6 to 12 percent slopes, eroded  
Norley silty clay loam, 12 to 18 percent slopes, severely eroded

Ishtemo sandy loam, 0 to 2 percent slopes  
Ishtemo sandy loam, 2 to 6 percent slopes  
Ishtemo sandy loam, 6 to 12 percent slopes, eroded  
Ishtemo sandy loam, 12 to 18 percent slopes

Palms muck, drained

tuinn loam

ensselaer loam  
ensselaer mucky loam  
Iddles loam, 0 to 2 percent slopes  
Iddles loam, 2 to 6 percent slopes  
Iddles loam, 6 to 12 percent slopes, eroded  
Iddles loam, 12 to 18 percent slopes, eroded

edrow fine sand  
racy sandy loam, 0 to 2 percent slopes  
racy sandy loam, 2 to 6 percent slopes  
racy sandy loam, 6 to 12 percent slopes, eroded  
rosel silt loam  
rmer loamy sand, 0 to 6 percent slopes  
rmer loamy sand, 6 to 12 percent slopes  
rmer loamy sand, 12 to 18 percent slopes

allkill silt loam  
ishtenaw silt loam  
vitaker loam

## CULTURAL FEATURES

### BOUNDARIES

National, state or province	=====
County or parish	=====
Minor civil division	-----
Reservation (national forest or park, state forest or park, and large airport)	=====
Land grant	=====
Limit of soil survey (label)	=====
Field sheet matchline & neatline	=====

### AD HOC BOUNDARY (label)

Small airport, airfield, park, oilfield, cemetery, or flood pool

### STATE COORDINATE TICK

LAND DIVISION CORNERS (sections and land grants)

### ROADS

Divided (median shown if scale permits)	=====
Other roads	=====
Trail	-----

### ROAD EMBLEMS & DESIGNATIONS

Interstate	
Federal	
State	
County, farm or ranch	

### RAILROAD

POWER TRANSMISSION LINE (normally not shown)

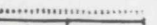
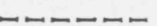
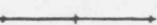
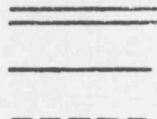
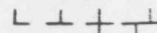
PIPE LINE (normally not shown)

FENCE (normally not shown)

### LEVEES

Without road	=====
With road	=====
With railroad	=====

### DAMS



## SYMBOLS LEGEND

### MISCELLANEOUS CULTURAL FEATURES

Farmstead, house (omit in urban areas)	•
Church	+
School	+
Indian mound (label)	Indian Mound
Located object (label)	Tower
Tank (label)	GAS
Wells, oil or gas	•
Windmill	+
Kitchen midden	+

## WATER FEATURES

### DRAINAGE

Perennial, double line	=====
Perennial, single line	=====
Intermittent	-----
Drainage end	=====
Canals or ditches	=====
Double-line (label)	CANAL
Drainage and/or irrigation	=====

### LAKES, PONDS AND RESERVOIRS

Perennial	
Intermittent	

### MISCELLANEOUS WATER FEATURES

Marsh or swamp	+
Spring	+
Well, artesian	+
Well, irrigation	+
Wet spot	+

## SPECIAL SYMBOLS FOR SOIL SURVEY

### SOIL DELINEATIONS AND SYMBOLS



### ESCARPMENTS

Bedrock (points down slope)	=====
Other than bedrock (points down slope)	=====

### SHORT STEEP SLOPE

### GULLY

### DEPRESSION OR SINK

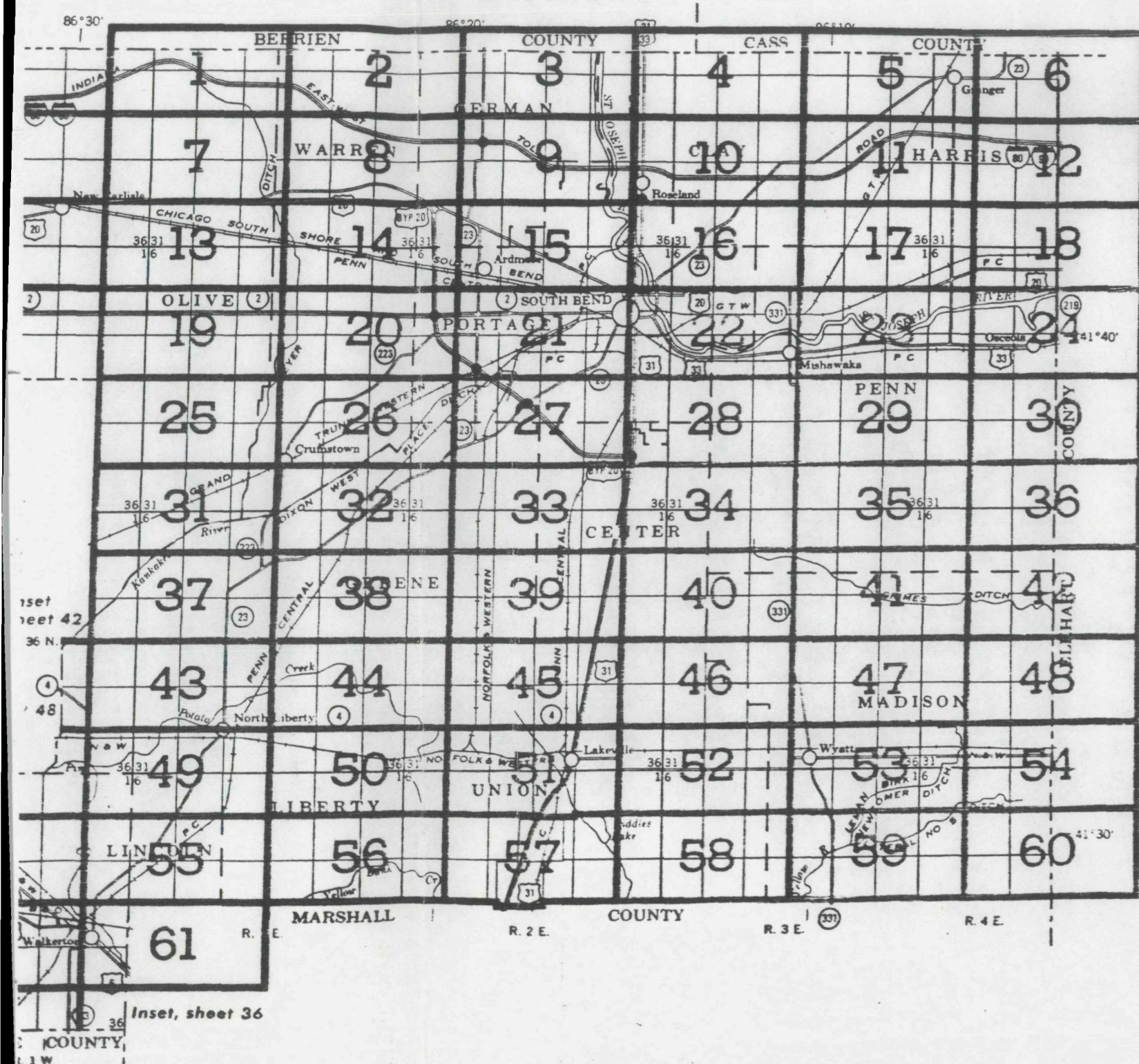
SOIL SAMPLE SITE (normally not shown)

### MISCELLANEOUS

Blowout	+
Clay spot	+
Gravelly spot	+
Gumbo, slick or scabby spot (sodic)	+
Dumps and other similar non soil areas	+
Prominent hill or peak	+
Rock outcrop (includes sandstone and shale)	+
Saline spot	+
Sandy spot	+
Severely eroded spot	+
Slide or slip (tips point upslope)	+
Stony spot, very stony spot	+
Borrow pit	+
Iron spot	+
Marl spot	+



# MICHIGAN



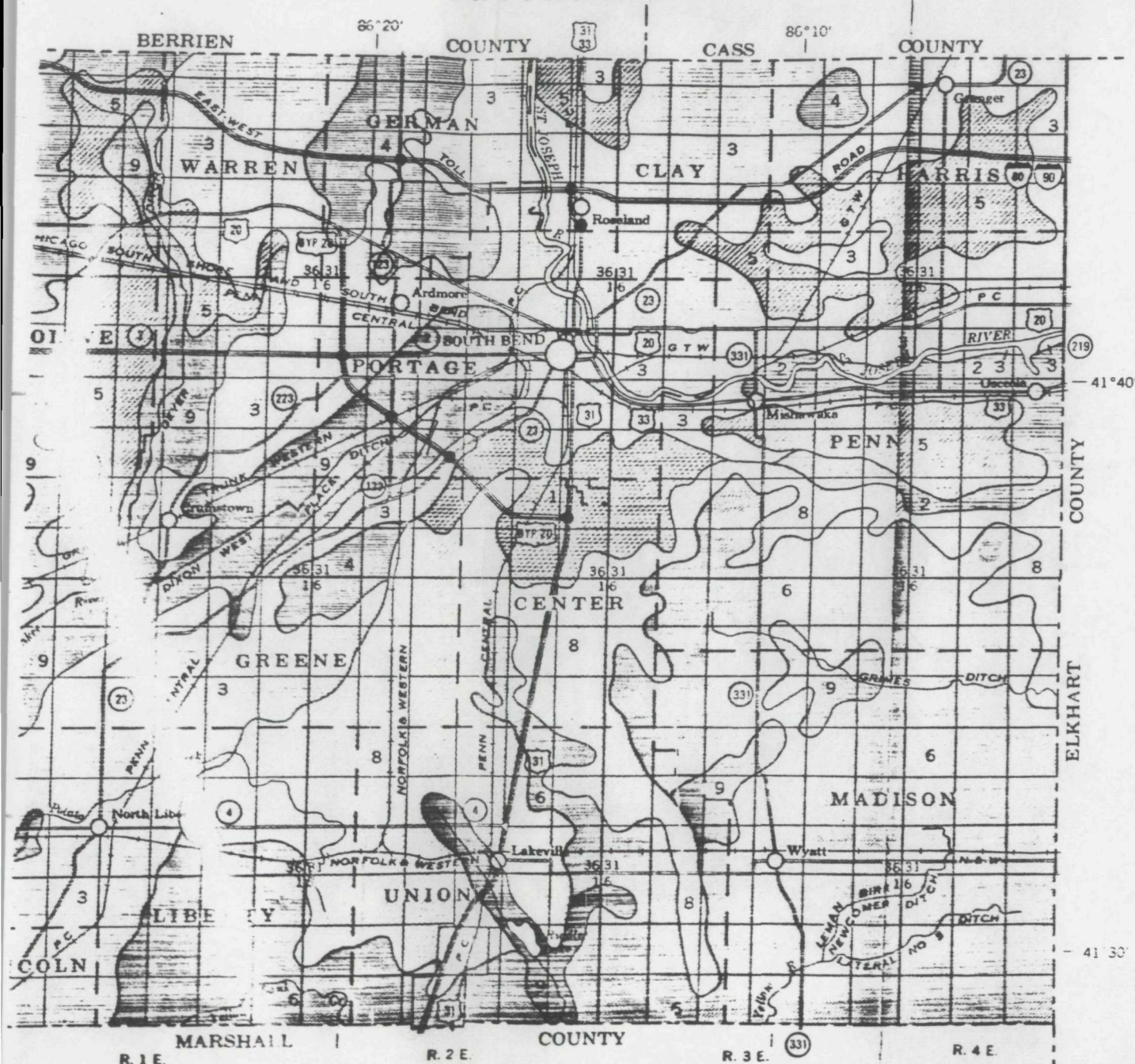
## INDEX TO MAP SHEETS ST. JOSEPH COUNTY, INDIANA

Scale 1:190,080  
1 0 1 2 3 4 Miles

SECTIONALIZED  
TOWNSHIP  
6 5 4 3 2 1



# MICHIGAN



## SOIL ASSOCIATIONS

**DOMINANTLY WELL-DRAINED TO EXCESSIVELY DRAINED, NEARLY LEVEL TO STRONGLY SLOPING SOILS**

- 1** Hillsdale-Oshtemo-Chelsea association: Deep, nearly level to strongly sloping, well-drained and excessively drained, moderately coarse textured and coarse textured soils on till plains, moraines, outwash plains, and terraces
- 2** Oshtemo-Fox association: Nearly level to strongly sloping, well-drained, moderately coarse textured soils that are deep and moderately deep over sand and gravelly sand; on outwash plains and terraces
- 3** Tyner-Oshtemo association: Deep, nearly level to strongly sloping, well-drained, coarse textured and moderately coarse textured soils on outwash plains and terraces
- 4** Coupee-Tracy association: Deep, nearly level to moderately sloping, well-drained, medium-textured and moderately coarse textured soils on outwash plains and terraces

**DOMINANTLY SOMEWHAT POORLY DRAINED TO VERY POORLY DRAINED, NEARLY LEVEL, GENTLY SLOPING, AND DEPRESSIONAL SOILS**

- 5** Rensselaer-Gilford-Maumee association: Deep, depressional and nearly level, very poorly drained, medium-textured, moderately coarse textured, and coarse textured soils on outwash plains
- 6** Crosier-Brookston-Milford association: Deep, depressional and nearly level to gently sloping, somewhat poorly drained to very poorly drained, medium-textured to moderately fine textured soils on till plains and lake plains

**DOMINANTLY WELL-DRAINED TO SOMEWHAT POORLY DRAINED, NEARLY LEVEL TO STRONGLY SLOPING SOILS**

- 7** Morley-Blount association: Deep, nearly level to strongly sloping, well-drained to somewhat poorly drained, medium-textured to moderately fine textured soils on till plains and moraines
- 8** Riddles-Miami-Crosier association: Deep, nearly level to strongly sloping, well-drained and somewhat poorly drained, medium-textured and moderately fine textured soils on till plains

**DOMINANTLY VERY POORLY DRAINED, DEPRESSIONAL AND NEARLY LEVEL, ORGANIC SOILS**

- 9** Houghton-Adrian-Palms association: Deep, depressional and nearly level, very poorly drained, organic soils on lake plains, outwash plains, and till plains

Compiled 1976

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

PURDUE UNIVERSITY AGRICULTURAL EXPERIMENT STATION

## GENERAL SOIL MAP ST. JOSEPH COUNTY, INDIANA

Scale 1:190,080  
1 0 1 2 3 4 Miles

SECTIONALIZED  
TOWNSHIP

6 5 4 3 2 1